Core Content

Cluster Title: Write radical expressions in equivalent form.

Standard: Write radical expressions in equivalent forms.

Concepts and Skills to Master

- Write radical expressions in equivalent forms using radical symbols.
- Perform operations on radical expressions.

Supports for Teachers

Critical Background Knowledge

• Use square root and cube root symbols (8.EE.2).

Academic Vocabulary

Radical expressions, radical form, index, radicand, root

Suggested Instructional Strategies

Resources

• Use radical expressions that are generated from geometry tasks.

Sample Formative Assessment Tasks

Skill-based Task

Multiply $2\sqrt{3}(5+\sqrt{6})$

Write $\sqrt{32}$ in an equivalent form

Problem Task

Are each of the following always true, sometimes true, or never true? Justify your answers.

$$\left(\sqrt{x}\right)^2 = \sqrt{x}$$

$$\left(\sqrt{x}\right)^2 = \sqrt{x^2}$$
$$\sqrt{x} - \sqrt{y} = \sqrt{x - y}$$

$$\frac{1}{\sqrt{x}} = \frac{\sqrt{x}}{x}$$

$$\sqrt{2}\sqrt{x} = \sqrt{2x}$$